JAWS pdf creator® v3

User Manual for Macintosh platforms

GLOBAL GRAPHICS® software

Contents

Introduction 5
About this manual 6
System Requirements 6

Installing and uninstalling PDF Creator 7
Installation 7
Serial number 7
Upgrade from evaluation to a fully working version 8
Uninstall PDF Creator 9

Getting started with PDF Creator 10
Create a PDF file from an application 10
Convert a PostScript or Encapsulated PostScript file to PDF 11
Create a PDF file containing bookmarks and links 12
Create a PDF file using a custom page size 12
Change the name or destination folder of the PDF file 12
Stop PDF Creator prompting for a file name 13
Turn off warning for non-DSC PostScript 13
Produce PDF files compatible with PDF viewing applications 13
Produce files that can be sent by e-mail 14
Produce more compact PDF files 14
Launch PDF application to view the file when complete 15
Change the author name in the PDF file 15

Jaws ToPDF—converting files to PDF 15
Using Jaws ToPDF 16

Jaws ToPDF configuration 17

Configuration Editor reference 21

Managing configurations on Mac OS X platforms 22
Creating a new configuration (Mac OS X) 23
Renaming a configuration (Mac OS X) 23
Deleting a configuration (Mac OS X) 23
Settings tab (Classic Mac only) 24
Creating a new configuration (Classic Mac) 25
Editing a configuration (Classic Mac) 25
Renaming or removing a configuration (Classic Mac) 25
General tab 26
Advanced Options dialog box 30
Compression tab 31
Font embedding tab 34
Security tab 36
Passwords 38
Security Options 39
Changes Allowed 40
Advanced tab (Mac OS X only) 41
Reporting tab (Classic Mac only) 43
About Jaws PDF Creator 44
Preferences (Mac OS X only) 45
Font management 46
Importing configurations 47
Exporting configurations 48

Support 49

Downloading PDF Creator 49
Reporting problems 49
Registering PDF Creator 50
Contact information 50
Troubleshooting 51

Technical Information 53

How PDF Creator works 53
Integration with the operating system 53
Advanced topics 54

File names 54
Font embedding 55
PostScript ProcSet resources 57
Custom PostScript language files 58
Using PostScript plugins 60
Map of installed files 61
Macintosh installation files 61
General files used by all operating systems 64

Jaws PDF Creator® on Macintosh platforms

Introduction

Jaws PDF Creator® converts PostScript language files into PDF files (Portable Document Format). These files can subsequently be used with PDF viewing and editing applications such as Jaws PDF Editor™ and Adobe® Acrobat® products, plus any other third-party PDF tools. The PDF files produced by PDF Creator are fully compliant with the PDF 1.3 and 1.4 specifications published by Adobe.

PDF Creator has two modes of operation:

Embedded mode: The application is embedded into the printing system of your computer's operating system (OS) so that it appears as a PostScript compatible printer to applications running on that computer. You can produce a PDF file from any document by printing the document to the Jaws PDF Creator printer, in the same way that you would produce hard-copy by printing to a real printer.

When creating PDF files, the printing system produces an intermediate PostScript language form of your document, which PDF Creator immediately converts to PDF and writes to disk.

Jaws PDF Creator works with PostScript printer drivers from Apple and Adobe.

Because PDF Creator is integrated into the printing system, it has no user interface of its own. However, it does have a Control Panel (known as the Configuration Editor on Mac OS X platforms) which allows you to configure various parameters affecting the final PDF output.

Standalone mode: A standalone version of Jaws PDF Creator, called *Jaws ToPDF* takes an existing PostScript language file—either a legacy file or a file produced on another computer—and converts it to PDF.

About this manual

This manual is intended as a guide to the installation and use of PDF Creator.

- "Installing and uninstalling PDF Creator" describes how to install, upgrade and uninstall PDF Creator.
- "Getting started with PDF Creator" covers basic use of both the Jaws PDF Creator printer and the Jaws ToPDF application.
- "Jaws ToPDF—converting files to PDF" describes the Jaws ToPDF application in more detail.
- "Configuration Editor reference" provides a comprehensive reference for the PDF Creator Configuration Editor (OS X)/Control Panel (OS 9). This is where most of the configuration is done.
- "Support" is where you will find all the support information you may require, such as how to register your copy and download new versions.
- "Technical Information" contains technical and more advanced information about PDF Creator as well as a map of all the installed files.

Throughout this manual, references to *PDF viewer* or *PDF viewing application* should be understood to refer to Jaws PDF Editor™, Acrobat Reader™ and Acrobat®.

This manual describes Jaws PDF Creator operation on both Mac OS X and Mac OS 9.x platforms. Differences in operation, or features are indicated by using different headings or separate paragraphs. In particular, details for Mac OS X versions are prefixed with the **Mac OS X:** heading. Details for Mac OS 9.x versions are prefixed with the **Classic Mac:** heading.

System Requirements

The system requirements are:

- **Mac OS X:** 10.2.x.
- **Classic Mac:** Mac OS 9.x.

- At least 10 MB of free disk space.
- Memory requirement is heavily dependent on the nature of the document being converted into a PDF file.

Installing and uninstalling PDF Creator

Installation

PDF Creator can be installed on Mac OS X platforms or Classic Macintosh platforms running Mac OS 9.x.

To install PDF Creator on a Macintosh platform:

1 Temporarily disable any virus detection software.

2 Double-click the installer application that appears on your desktop when you insert the CD-ROM into the drive.

3 Follow the on-screen instructions to install Jaws PDF Creator. Note that on Mac OS X, you will be prompted for a password when you run the installer. This is because the installer requires administrator privileges.

During installation, you can either enter a serial number or run in evaluation mode, as described in "Serial number" below.

Serial number

If you have a serial number for your version of Jaws PDF Creator you can use it at installation time. This will immediately give you a licensed and fully featured version of the application.

If however you wish to evaluate the product, you can install it without a serial number. To do this, click the **Evaluation** button.

This will provide you with a working copy of the application. In this case, all PDF files generated by the application will contain a watermark on every page.

Upgrade from evaluation to a fully working version

When you have evaluated Jaws PDF Creator you may wish to upgrade to a fully working version.

Mac OS X: Open the Jaws ToPDF application and choose the Jaws ToPDF > About Jaws ToPDF menu option.

Classic Mac: Open the Jaws ToPDF application and select **About Jaws ToPDF** from the Apple menu.

The About dialog will appear. If you do not have a valid serial number, select the link to the Jaws web site (www.jawspdf.com) and go to the **How to buy** page and follow the instructions.

When you have your serial number you can upgrade your version of Jaws PDF Creator.

Mac OS X: Click the **Enter Serial Number** option in the About Jaws PDF Creator dialog box.

Classic Mac: Open the Jaws ToPDF application and select **Enter Serial Number** from the Apple menu.

The following dialog will appear:

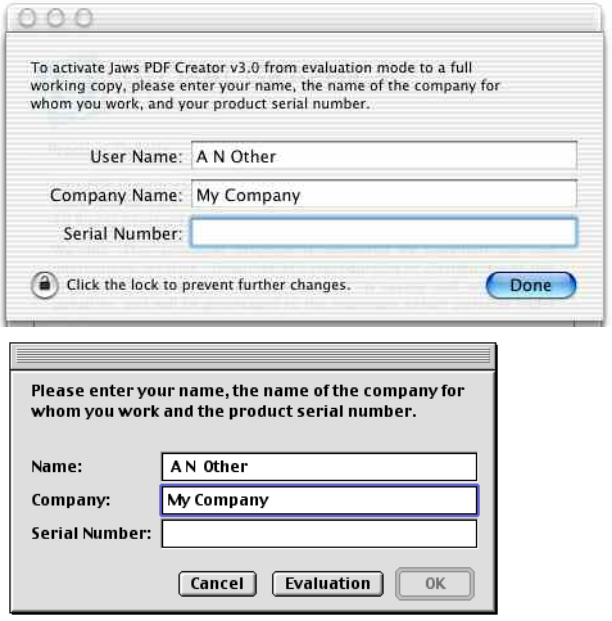

To activate Jaws PDF Creator v3.0 from evaluation mode to a full working copy, please enter your name, the name of the company for whom you work, and your product serial number.
User Name: A N Other
Company Name: My Company
Serial Number:
Click the lock to prevent further changes.
Done
Please enter your name, the name of the company for whom you work and the product serial number.
Name: A N Other
Company: My Company
Serial Number:
Cancel
Evaluation
OK

Figure 2.1 *Serial number dialog box*

Enter your name, company and serial number and select **Done** or **OK**.

The user name must consist of at least two characters. The company name is optional.

Your version of PDF Creator will become licensed and fully functional.

If required, you can amend an existing serial number or even remove it and revert to an evaluation copy (possibly required if you want to check out the facilities of a new version).

Uninstall PDF Creator

To remove PDF Creator from a Macintosh computer:

1. Double-click the install application and click **Continue** in the splash screen.
2. In the End User LICENSE Agreement dialog box click **Accept** to display the installer's main window.

3 Select **Uninstall** from the menu at the top left of the window and click the **Uninstall** button.

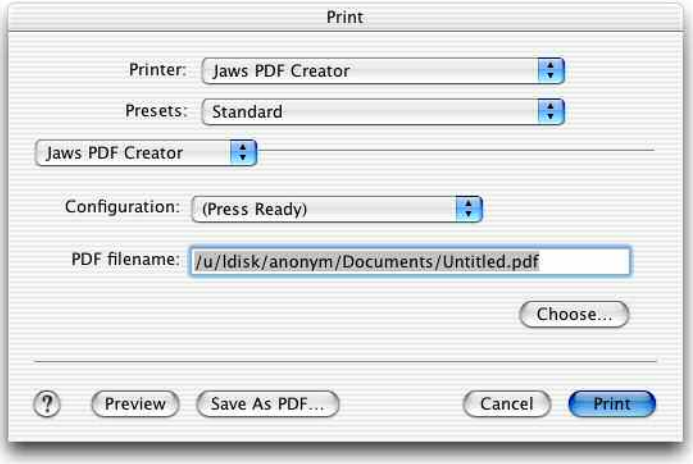
4 On Classic Macintosh platforms, once the removal has completed, drag the PDF Creator Desktop Printer icon to the Trash.

Getting started with PDF Creator

This section describes the main features of PDF Creator and how to use them.

Create a PDF file from an application

To create a PDF file directly from an application, print the document in the normal way, ensuring that you select **Jaws PDF Creator** as the printer:



Mac OS X: Choose `Jaws PDF Creator` as the **Printer** and select the required configuration and PDF file name in the `Jaws PDF Creator` pane before clicking **Print**.

Do not click the **Save As PDF** button and do not select **Save as File** in the `Output Options` pane.

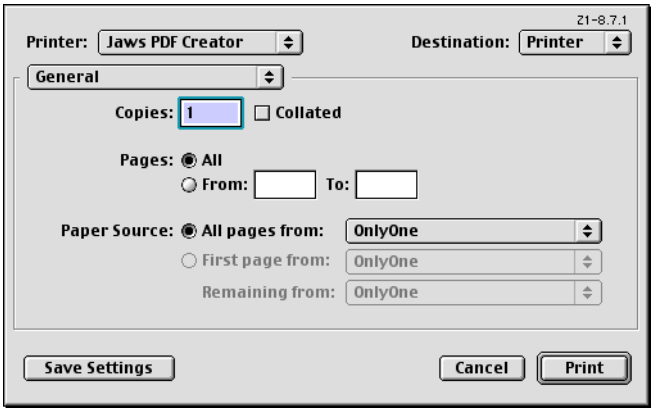


Figure 2.2 Print dialog

Classic Mac: When the **Print** button is clicked in the Print dialog a Save dialog appears allowing you to choose the location and name of the PDF file. Clicking **Save** completes the process.

Do not select the `File` option from the **Destination** menu. PDF Creator always prints to a PDF file. If you select this option you will create a PostScript file instead.

Convert a PostScript or Encapsulated PostScript file to PDF

Jaws PDF Creator can convert PostScript language or EPS (Encapsulated PostScript) files to PDF.

When Jaws PDF Creator is installed, a desktop icon called Jaws ToPDF is created.

Mac OS X: Drag the PostScript or EPS file onto the Jaws ToPDF application. Alternatively, select the document in the Finder, control-click to open the contextual menu and select **Open with > ToPDF**.

Classic Mac: Drag the PostScript or EPS file onto the Jaws ToPDF application. Alternatively, select the document in the Finder, control-click to open the contextual menu and select **Convert To PDF**.

The location of the PDF file is the same folder as the source document, although this location can be changed, see "General tab" for details. The progress of the PDF file creation is indicated by a progress dialog.

Create a PDF file containing bookmarks and links

PDF Creator includes an implementation of the PostScript `pdfmark` operator, which is used to create PDF annotations. Some applications, such as FrameMaker®, directly support the generation of PDF annotations. Others may require the use of special macro packages or hand-made EPS files. In each case, any method of generating annotations that works with other PDF creation applications also works with PDF Creator.

The `pdfmark` operator is documented in Adobe Technical Note number 5150, which is freely available from their web site.

Create a PDF file using a custom page size

If you are generating a PDF file intended mainly for on-screen viewing, you may want to generate it with an unusual page size, so that it fits more neatly onto the screen. The PostScript compatible interpreter in PDF Creator can accept any page size specified via the `setpagedevice` operator.

Mac OS X: To use a custom page size, choose `Custom Paper Size` from the **Settings** menu in the Page Setup dialog. You must specify a name for the paper size as well as the dimensions. Ensure this paper size is selected when printing to Jaws PDF Creator. For full details, see the *Printing using a custom paper size* Mac Help procedure.

Classic Mac: To use a custom page, choose **Custom Page Sizes** from the LaserWriter 8 Page Setup dialog that appears when you choose **Page Setup...** from any application.

Change the name or destination folder of the PDF file

When you print to PDF Creator from an application, PDF Creator prompts you for a destination folder for the output file, unless you enable the **Always output files to** option in the General tab. The default destination folder is the last folder you used,

and the file name is constructed from the document name provided by the application. You may change either of these before clicking **OK** to save the PDF output file.

Jaws ToPDF does not prompt you for the output file name, by default. Instead, the output file is created in the same folder as the input file, and with the same name, except for a `.pdf` extension. If you enable the **Always output files to** option in the General tab, Jaws ToPDF places the file in this folder, but with the same name as the input file (and a `.pdf` extension).

Note that the output files are saved as a PDF file type.

On Classic Macintosh platforms, if you select **Always prompt for a destination** in the Configure Jaws PDF Creator dialog box, a prompt for an output file name appears for each file. See "Jaws ToPDF configuration" for more information about configuring the Jaws ToPDF application.

When the prompt for a name and destination folder appears you can also change the security options. For more information, see "Security tab".

Stop PDF Creator prompting for a file name

In the PDF Creator Configuration Editor/Control Panel, click the General tab and select the **Always output files to** check box. Then select the folder in which you want to save the PDF files. For more information, see "General tab".

Turn off warning for non-DSC PostScript

On Classic Macintosh platforms, you are able to turn off warnings when PDF Creator encounters non-DSC PostScript language files. For more information see "Jaws ToPDF configuration".

Produce PDF files compatible with PDF viewing applications

Jaws PDF Creator can produce PDF version 1.3 and 1.4 files.

PDF 1.3 and 1.4 files are compatible with Jaws PDF Editor (although PDF Editor cannot currently open PDF 1.4 files using 128 bit encryption).

PDF 1.3 files are compatible with Acrobat v4.0 (or later). PDF 1.4 files are compatible with Acrobat v5.0 (or later).

NOTE: *The PDF 1.4 files produced by PDF Creator comply with the Adobe specification, but do not support all PDF 1.4 features.*

Produce files that can be sent by e-mail

To produce files that can more easily be sent by e-mail, select the General tab in the PDF Creator Configuration Editor/Control Panel and select the **ASCII format** check box. For more information, see "General tab".

Produce more compact PDF files

There are several options that have an effect on the size of the output file, all of which are available in the Font embedding tab and the Compression tab of the PDF Creator Configuration Editor/Control Panel. The default settings after installation are designed to give the maximum lossless compression for general use. The most important options are:

Compress text: This option applies zip compression to the PDF commands in page descriptions.

Subset embedded fonts: This option can help reduce the size of the output. If you are working in a controlled environment, where you know which fonts are loaded on the destination machines, choosing not to embed some or all fonts can further reduce the size.

Image compression: Zip compression is usually the best overall compromise setting as it is efficient and lossless.

JPEG compression: If you can tolerate lossy compression, that is, compression that throws some of the data away never to be retrieved, you can use JPEG compression.

Advanced users can also tailor the parameters used by JPEG compression.

These parameters are in the file `startup.ps`. See "Custom PostScript language files" for further details.

Zip with Predictor: You may find that Predictor compression sometimes improves the performance on images where there are lots of similarly colored pixels. Note that the terms Zip and Flate are interchangeable; they both refer to the same kind of compression.

Launch PDF application to view the file when complete

Jaws PDF Creator can automatically launch any application on successful completion of a job. For details on how to set the **Launch application on job completion** option, see "General tab".

Change the author name in the PDF file

The author name is the name that appears in your PDF viewer if you select **File > Document Info > General info**. The author name that PDF Creator places in the Info dictionary of a PDF file is a combination of the current user name and the computer name. If the computer is not on a network, PDF Creator uses the name and company you entered during installation. See "prologue.ps" for more information.

Note that it is possible to change this by editing the file `prologue.ps`. See "Custom PostScript language files" for further details.

If you edit this file with a text editor, you will see the following lines:

```
%%%%%
% Here's how to change the Creator in the DocInfo
structure.
% Watch the ':' !
% (: YourNameHere) DoAuthor
```

Change `YourNameHere` to the text you would like, and remove the `%` from the beginning of the line. PDF Creator uses this for the author name.

Jaws ToPDF—converting files to PDF

Jaws ToPDF is a front end to PDF Creator that lets you treat it as a standalone application which allows you to convert existing PostScript language or EPS files to PDF.

Jaws ToPDF can accept PostScript language and EPS files including EPS with previews. If Jaws ToPDF does not recognize a file format, it generates a warning before processing.

Using Jaws ToPDF

You can use the Jaws ToPDF application to convert a file to PDF, in one of the following ways:

- Drop a file onto the Jaws ToPDF application icon.
- Choose **Open...** from the **File** menu.
- Drop a file onto the Jaws ToPDF application window.

When a file is being converted its progress is indicated:

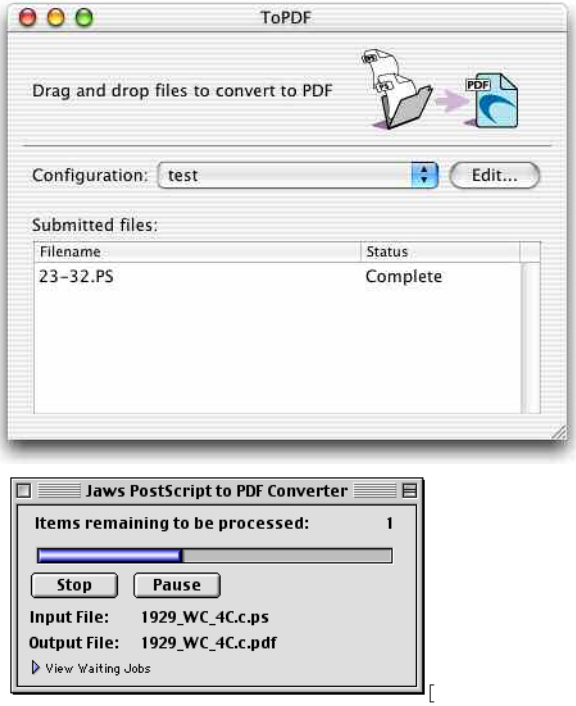


Figure 2.3 *Jaws ToPDF application window*

The PDF file is saved in the default output folder, which is the same location as the input file, unless the **Always Output Files To** option has been set in the General tab.

NOTE: *If the destination file name already exists in this location, and the **Overwrite an existing PDF file** option is not selected in the General tab, a unique number is appended to the file name. An example of a name is:* `Book.pdf`, `Book 1.pdf`, `Book 2.pdf`.

See "General tab" for more information.

Jaws ToPDF configuration

Open the Configuration Editor (Mac OS X) or the Jaws ToPDF Settings dialog box (Classic Macintosh) as follows:

Mac OS X: Click the **Edit** button in the Jaws ToPDF application window to open the Configuration Editor.

Classic Mac: With the Jaws ToPDF application open, use the **Settings > Configure...** option to open the Jaws ToPDF Settings dialog box.

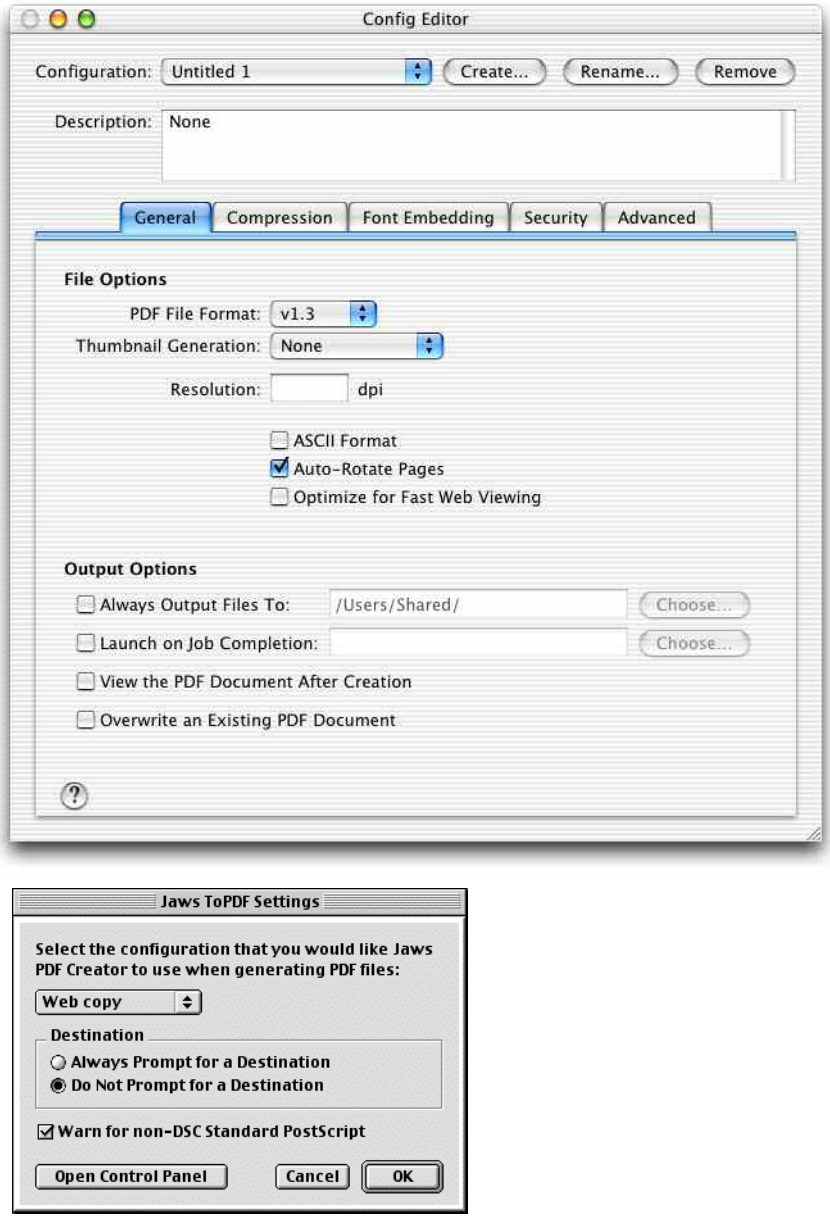


Figure 2.4 *Jaws ToPDF configuration*

Three standard configurations are provided from the **Configuration** menu:

Press Ready: Optimized for sending jobs to a commercial printer at 2540 dpi (dots per inch).

Print Quality: Optimized for printing to office type laser printers at 600 dpi.

Web: Optimized for screen viewing and for use in web pages at 72 dpi.

Any custom configurations you have created also appear in this menu. Note that you cannot edit the standard configurations. On Mac OS X platforms, the names of shared configurations are enclosed in brackets. For example, `(my_conf)`. See "Creating a new configuration (Mac OS X)" and "Renaming a configuration (Mac OS X)" for details.

Mac OS X: You can use the **Create**, **Rename** and **Remove** buttons in the Configuration Editor to create, modify and remove configurations. See "Managing configurations on Mac OS X platforms" for more details.

Classic Mac: Use the **Open Control Panel** button to display the PDF Creator Control Panel, where additional configurations can be defined. For more information on how to create a custom configuration see "Settings tab (Classic Mac only)".

In the Jaws ToPDF Settings dialog box (Classic Mac only), Jaws ToPDF can be configured to either; prompt for an output file name, or to save the file in the default output folder.

When you select **Always prompt for a destination**, a PDF Creator browser dialog is displayed every time you convert a file. This allows you to change the output file name or place it in a different folder.

If you select **Do not prompt for a destination**, Jaws ToPDF silently outputs the PDF file to the default output folder. Although you can only change this setting from the Jaws ToPDF application window, it also affects any jobs which are converted by being dropped onto the desktop icon or shortcut.

Whether or not you ask Jaws ToPDF to prompt for a destination, it calculates the default output folder in the same way. This is the same folder as the input file, unless you have set the **Always output files to** option in the General tab, in which case it is the folder you have specified. See "General tab" for more information about the General tab. If you have configured Jaws ToPDF not to prompt for a destination, the default output folder is used. If you have asked Jaws ToPDF to prompt you, the browser dialog still allows you to change the output folder.

Standard PostScript language files begin with the comment `%!PS`. If this comment is missing, PDF Creator is still able to recognize the file as a PostScript language file and process it in the normal way. On Classic Macintosh platforms, with the **Warn for non-DSC Standard PostScript** option checked (as it is by default), any PostScript language file encountered without a `%!PS` comment will cause an error message to be displayed. You then have the choice whether to continue to process the file or not.

When you convert an EPS file, Jaws ToPDF uses the bounding box in the file to determine the page size for the PDF file, and ignores the currently selected **Use %%BoundingBox for** option. See "Advanced Options dialog box" for more information.

When the configuration for the Jaws ToPDF application is completed, select **OK**. Selecting **Cancel** aborts the changes made to the configuration.

Configuration Editor reference

This section describes all the options available in the Configuration Editor.

NOTE: *The Configuration Editor is known as a Control Panel on Classic Mac platforms.*

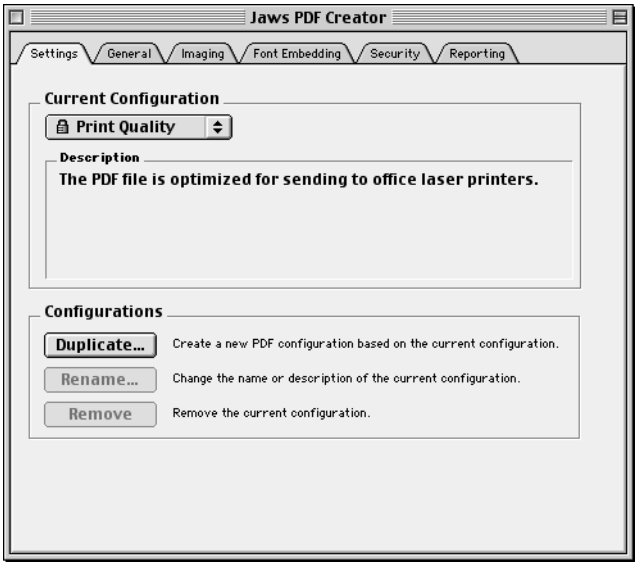


Figure 2.5 *Configuration Editor/Control Panel*

Use the following options to open the Configuration Editor/Control Panel:

Mac OS X: Click **Edit** in the ToPDF application window, or open the Configuration Editor application, located by default in the `Applications` folder.

Classic Mac: Select **Apple Menu > Control Panels > Jaws PDF Creator**. Alternatively, with the Jaws ToPDF application open, use the **Settings > Configure...** option and then click the **Open Control Panel** button.

Mac OS X versions of the Configuration Editor contain buttons that allow you to create, modify and remove configurations, as described in "Managing configurations on Mac OS X platforms". In Classic Macintosh versions of PDF Creator, equivalent controls are located in the Settings tab within the Control Panel.

The PDF Creator Configuration Editor/Control Panel has a number of tabs for different tasks. Click the various tabs to access and change the information contained under that heading. "Settings tab (Classic Mac only)" through to "Reporting tab (Classic Mac only)" describe the options contained within each tab.

Managing configurations on Mac OS X platforms

You can use the **Create**, **Rename** and **Remove** buttons in the Configuration Editor to add, modify and delete configurations.

Creating a new configuration (Mac OS X)

Click the **Create** button in the Configuration Editor to open the Add Configuration dialog box, which allows you to create a custom configuration.

You must provide a unique name for the configuration in the **Configuration** text box. Optionally, you can provide a **Description** of the configuration, such as its intended use.

If you wish to duplicate the settings from another configuration, you should choose it from the **Based On** menu.

If you have administrator privileges, you can click the **Make available to all users** check box if you wish to allow other users to access the configuration. Otherwise, this option is disabled. Note that only administrators can edit or delete shared configurations. The names of shared configurations are automatically enclosed in brackets. For example, `my_conf` becomes `(my_conf)` and `(my_conf)` becomes `((my_conf))`.

Renaming a configuration (Mac OS X)

Click the **Rename** button in the Configuration Editor to open the Rename Configuration dialog box, which allows you to change the name of the currently selected configuration.

Check the **Current name** details to ensure that you are renaming the correct configuration. You must enter a unique name for the configuration in the **New name** text box.

NOTE: If you have administrator privileges, you can make an existing configuration available to all users by clicking the **Make available to all users** *check box. The names of shared configurations are automatically enclosed in brackets. For example,* `my_conf` *becomes* `(my_conf)` *and* `(my_conf)` *becomes* `((my_conf))`.

Deleting a configuration (Mac OS X)

Click the **Remove** button in the Configuration Editor to delete the currently selected configuration. Note that you cannot delete any of the predefined configurations (Web, Press Ready, Print Quality).

You cannot delete configurations created by other users, unless you have administrator privileges.

Settings tab (Classic Mac only)

NOTE: *On Mac OS X platforms, the controls described below are located at the top of the Configuration Editor, rather than within a tab. See "Managing configurations on Mac OS X platforms" for more details.*

Typically, the options in this tab are the most frequently changed. You can choose the default configuration that PDF Creator will use to create PDF files.

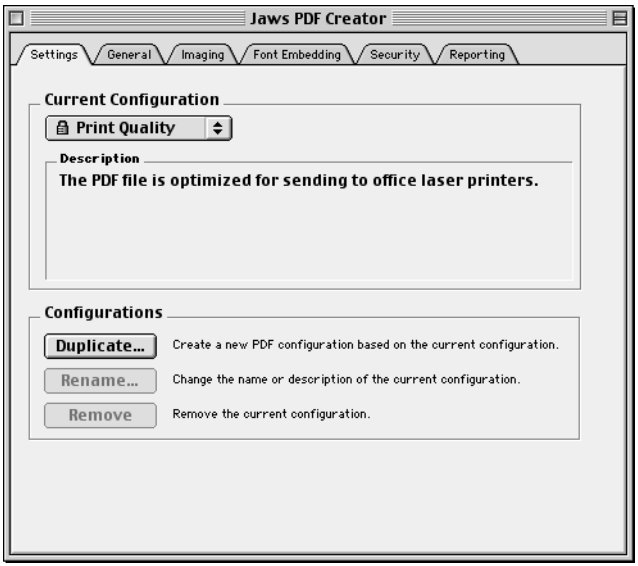


Figure 2.6 *Settings tab*

The menu in the **Current Configuration** section contains the name of the default configuration. If you want to use a different configuration, choose another name from the menu. This new selection is immediately available (you do not have to close the dialog).

PDF Creator is supplied with three standard configurations that are suitable for most uses:

Press Ready: Optimized for sending jobs to a commercial printer at 2540 dpi (dots per inch).

Print Quality: Optimized for printing to office type laser printers at 600 dpi.

Web: Optimized for screen viewing and for use in web pages at 72 dpi.

Note that you cannot edit the standard configurations. As each option is selected, the window below contains a brief description of that option.

Creating a new configuration (Classic Mac)

If none of the existing configurations in the Settings tab (Classic Mac only) are appropriate, you may create a new one.

Select the configuration which most closely matches your intended new configuration and click **Duplicate**.

Although a unique name for the configuration is generated automatically, you may want to change the name and description to reflect the intended use.

Editing a configuration (Classic Mac)

If you want to make changes to an existing configuration in the Settings tab (Classic Mac only), other than one of the standard configurations, select it from the **Current Configuration** menu then make the desired changes to the other tabs.

New options are immediately available (you do not have to close the dialog). To abort recent changes use the **Edit > Undo** menu option.

Renaming or removing a configuration (Classic Mac)

You may change the name or description of an existing configuration in the Settings tab (Classic Mac only) by selecting it and clicking the **Rename** button. You may remove a configuration by selecting it from the list and clicking the **Remove** button.

The standard configurations that are shipped with PDF Creator may not be renamed or removed, therefore these buttons are disabled when a standard configuration is selected from the menu. If you do make changes to a standard configuration, you are prompted to save the modified configuration with a new name.

Leading and trailing spaces are removed from the name. Configuration names must be unique and are not case sensitive (that is, `ConfigName` and `configNAME` are considered to be the same).

General tab

The General tab provides options to configure the type of PDF file, the location for the file and the actions to perform when the PDF has been created.

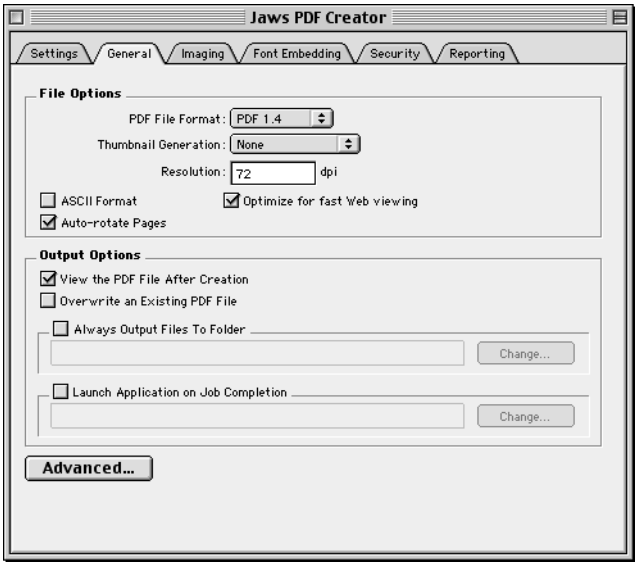


Figure 2.7 *General tab*

The following items in the **File Options** section of the General tab, allow you to control the format of the output file:

PDF file format: Use this option to create either PDF 1.3 or PDF 1.4 files.

All PDF 1.3 and 1.4 are compatible with Jaws PDF Editor.

PDF 1.3 files are compatible with Acrobat Reader v4.0. PDF 1.3 and PDF 1.4 files are compatible with Acrobat Reader v5.0.

Note that PDF Creator v3.0 or later does not create PDF 1.2 files.

Thumbnail generation: Jaws PDF Creator can optionally generate thumbnail images of each page (either monochrome or color), which can be used as a navigation aid in your PDF viewing application. Some PDF viewers automatically create thumbnails so leaving this option set to off can reduce the size of the generated PDF.

Resolution: This option allows you to change the effective resolution at which the PostScript language job is rendered.This only affects jobs which contain resolution-dependent (and therefore device-dependent) code. If your job contains pattern fills, the printer driver attempts to snap the pattern frequency to a sub-multiple of the device resolution. Some drawing packages also use the resolution (in conjunction with the halftone frequency) to calculate the number of steps to use for graduated fills. All other page elements should be unaffected by the resolution.

If the PDF file is intended for printing, you should set the resolution to be the same as the resolution of the intended final output device. Otherwise, you should only change the resolution if you experience poor quality output with pages containing patterns or graduated fills.

ASCII format: If this option is selected, any binary data (including compressed text) in the PDF file is converted to a printable ASCII representation. This makes it safe to transmit your PDF pages over a medium that does not support binary transmission (internet e-mail for example). Using ASCII format will increase the size of your PDF file.

Auto-rotate pages: PDF Creator will always honor requests for landscape output, however some applications will produce landscape output by rotating the output onto a portrait page. When printed, this is not a problem, as the page can easily be rotated. However, when producing a PDF this leads to text running up the screen.

If this option is selected, PDF Creator will look for, and act on, the `%%ViewingOrientation` DSC comment in the incoming PostScript job. The `%%ViewingOrientation` comment explicitly specifies how to rotate the page from its default orientation so that the PDF is produced at its optimum viewing orientation.

The `%%ViewingOrientation` DSC comment is inserted into the job by the application generating the PostScript files and/or the printer driver. Not all applications and drivers generate this comment.

If the `%%ViewingOrientation` DSC comment is present in a job, it will be used. Otherwise PDF Creator will attempt to determine the orientation of the majority of the text on the page, and rotate the page until this text is upright.

PDF Creator does this by looking at the text baseline and making it travel from left to right, so it gets the result wrong if most or all of the text on the page is mirrored.

For more information on rotation, see "Troubleshooting".

Optimize for fast web viewing: Before distributing PDF files via the web you should make sure they are created using this option.

This option may reduce file size, and prepares the document for page-at-a-time downloading, sometimes called *byte-serving*. You will generally find that this option significantly reduces the file size of your PDF document.

When a document has been optimized for page-at-a-time downloading, the web server sends each individual page of information requested by the user, rather than the whole PDF document. When working with large documents, which can take a long time to download, using the **Optimize for fast web viewing** option is particularly important.

The following items in the **Output Options** section of the General tab, allow you to control what happens to the PDF once it has been created:

Always output files to: If this box is checked, PDF Creator does not prompt you for a destination file name, but outputs all PDF files to the specified destination folder. The file name is composed of the document name (with a numerical suffix, if necessary to avoid duplicate file names). This feature is mainly of use when using PDF Creator to generate all files in a single location. In this case, you should also make sure that you do not have **Display Messages** enabled in the Reporting tab, described in "Reporting tab (Classic Mac only)".

The numeric suffix generation can be defeated using the **Overwrite an existing PDF file** option. See later in this section for more information.

Mac OS X: Select the check box, then either enter the full path or click **Choose** to select the required folder.

Classic Mac: When you select this option a Select Folder dialog box appears allowing you to choose the required folder. If a folder has previously been selected, use the **Change** button to choose a new location.

Launch on job completion: You can select an application, which PDF Creator executes each time a job is successfully converted to PDF.

Mac OS X: Select the check box, then either enter the full path or click **Choose** to select the required application.

Classic Mac: When you select this check box, a Choose Folder dialog box appears allowing you to select the required application. PDF Creator sends the nominated application an Open Document AppleEvent. If the application is not already running, it will be launched. Within the `Jaws PDF Creator:Scripts` folder two scripts are available for selection. The scripts `Create Eudora Message` and `Create Outlook Message` open the respective applications with the previously generated PDF selected as an attachment.

View the PDF file after creation: Select this option to automatically open your generated PDF file using the system-registered PDF viewing application. If a viewing application is not installed, nothing will happen.

Overwrite an existing PDF file: With this option selected, PDF files with the same name as an existing file overwrite the existing file rather than create a file name with an increment. This option only applies when the **Do not prompt for a destination** option is selected. If **Always prompt for a destination** is selected you always have the choice of overwriting or creating a new name.

Advanced (Classic Mac only) : Click the **Advanced** button in the General tab to open the Advanced Options dialog box and access extra configuration options.

Advanced Options dialog box

*NOTE: On Classic Macintosh platforms, advanced options are accessed by clicking **Advanced** in the General tab to open the Advanced Options dialog box. The options in this dialog box as the same as those in the Advanced tab of PDF Creator on Mac OS X platforms. See "Advanced tab (Mac OS X only)" for a description of advanced options.*

Compression tab

The sections in the Compression tab allow different compression techniques to be applied to different types of images.

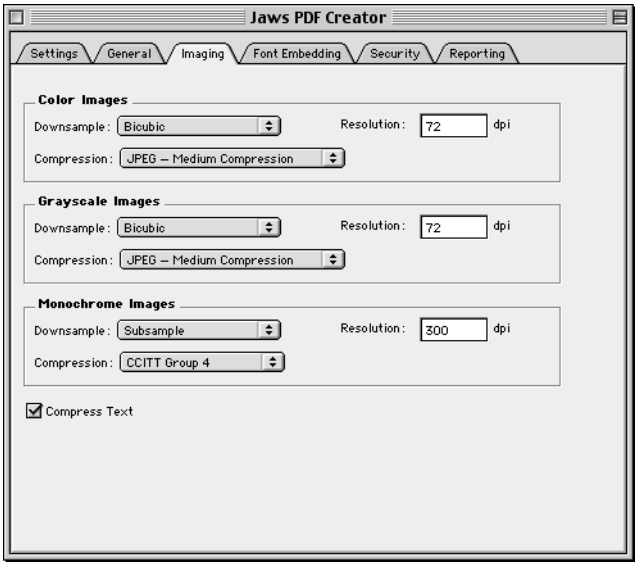


Figure 2.8 *Compression tab*

Downsample: These options allow you to control whether and how PDF Creator reduces the resolution of images in the PostScript language file input.

Set this to '`Don't downsample`' if your documents are intended for printing.

'`Subsample`' reduces the resolution of the image by dropping pixels.

'`Average`' reduces the size by averaging neighboring pixels and produces good quality results. You cannot average a monochrome image in PDF Creator because PDF Creator does not "promote" such images to grayscale.

'`Bicubic`' reduces the resolution by performing bicubic interpolation to generate new pixel values. This option can generate more pleasing results though the PDF will be slower to generate. Bicubic is not available with monochrome images.

Compression: There are three compression filters available for dealing with images.

The Zip filter uses a lossless compression technique and normally produces good compression ratios. It can optionally apply a predictor algorithm which can further improve the compression for some classes of image.

The JPEG filter uses a lossy algorithm (which irretrievably discards data), but it produces excellent compression ratios on photographic images. You can optionally modify some of the JPEG compression parameters by editing the file `startup.ps`, as described in "startup.ps".

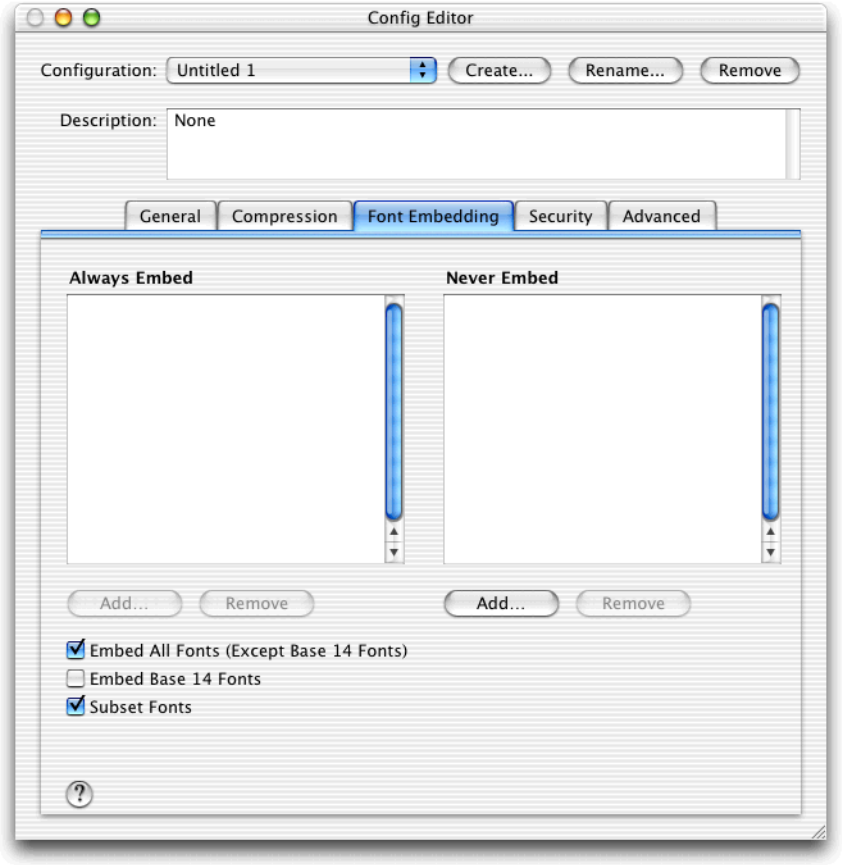
The CCITT filter uses standard fax compression, and is only applicable to bitmap images. You can control the selection of group 3 or group 4 fax compression in `startup.ps`. See "startup.ps" for details.

Resolution: If you have enabled downsampling, this option lets you specify the target resolution of the reduced images actually embedded in the PDF file.

Compress text: If this is selected, PDF Creator compresses textual information, such as page descriptions, using Zip compression.

Font embedding tab

The Font embedding tab allows you to control how fonts are handled in your PDF files.



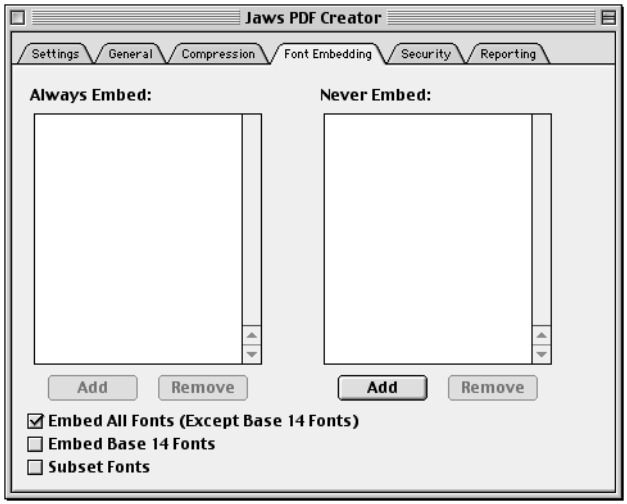


Figure 2.9 *Font embedding tab*

Always embed: Fonts listed in this box are always embedded in the output PDF file. Use the **Add** and **Remove** buttons to manage this list.

You should check the terms of your font license agreement before embedding any fonts. Named fonts will be embedded if they are referenced in the original PostScript language file and are available to PDF Creator.

Base 14 fonts in this list are always embedded, even if the **Embed base 14 fonts** check box is not selected. This allows you to include individual base 14 fonts in a document, rather than all base 14 fonts.

Never embed: Fonts listed in this box are never embedded in the output PDF file. Use the **Add** and **Remove** buttons to manage this list.

Embed all fonts (except base 14 fonts): When this option is selected, all fonts present in the document (except base 14 fonts) are embedded in the output PDF file and all fonts that were embedded in the PostScript language file (by the printer driver or generating application) will also be embedded. If a font is referenced by the incoming PostScript file and is available to PDF Creator, it will be embedded in the generated PDF file.

If this option is not selected, the font will only be embedded if it is named in the **Always embed** list.

Any candidate for embedding is rejected if it is one of the base 14 fonts (unless it appears in the **Always embed** list), or it appears in the **Never embed** list.

Embed base 14 fonts: If this is selected, all base 14 fonts present in the document are embedded in the output PDF file. Selecting this option implicitly adds the base 14 fonts to the **Always embed** list.

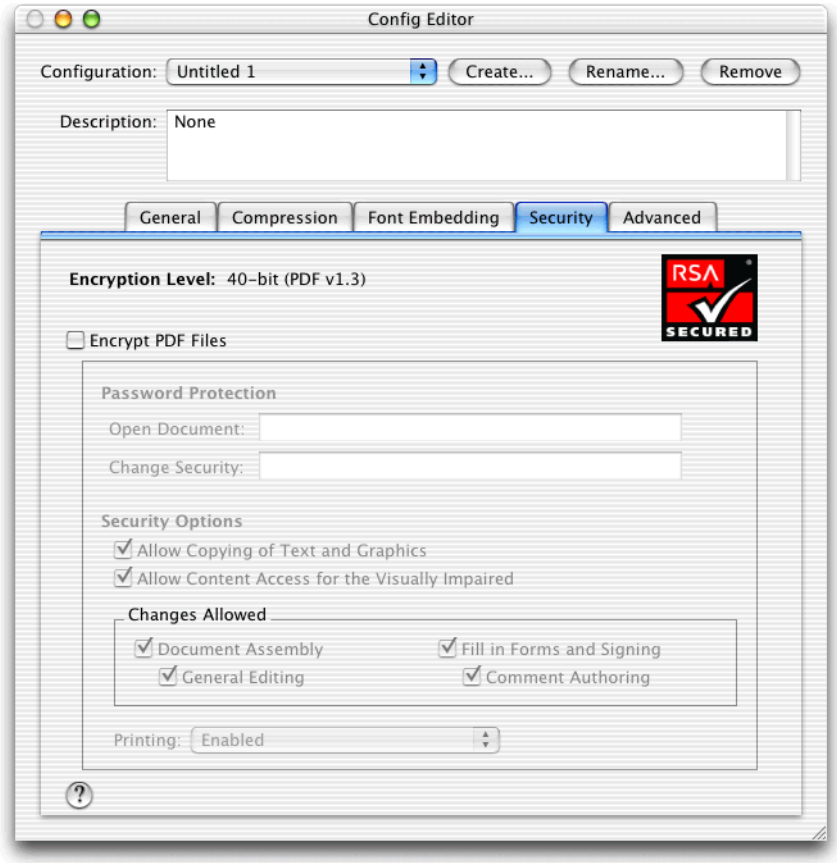
Note that if you wish to embed *individual* base 14 fonts, rather than *all* base 14 fonts, you should add them explicitly to the **Always embed** font list, and deselect this check box.

Subset fonts: With this option selected, only subsets of the original fonts are embedded in the PDF file. This is the preferred setting, as it leads to smaller files. However, selecting **Subset fonts** prevents you from subsequently using Acrobat plug-ins or other tools that allow text editing within a PDF file, as not all characters from the embedded fonts are available for use.

Security tab

The options under the Security tab provide various levels of protection for your PDF documents.

Select the **Encrypt PDF files** check box to enable the other options in the tab.



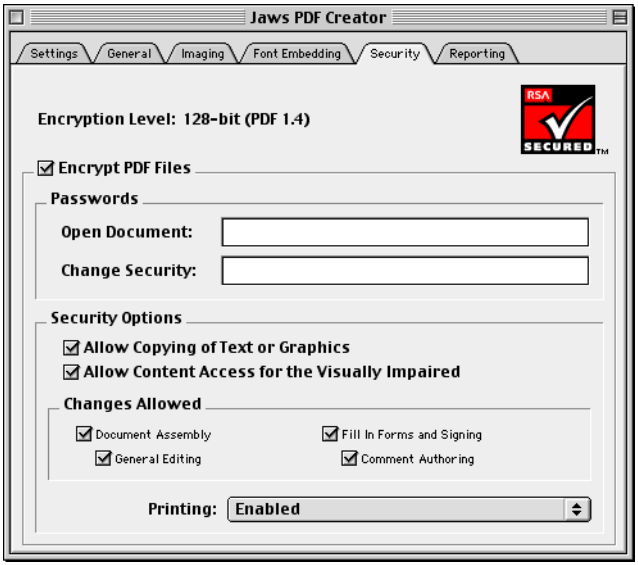


Figure 2.10 *Security tab*

Encrypt PDF files: Select this option to encrypt the PDF files created by PDF Creator.

This option is, as a default, not selected which means that users of the PDF have full access to the available options. When selected, the security options within this tab become available and thus restrictions can be placed upon the user of the PDF document.

The level of encryption depends on the selected PDF level, see "General tab" for more information. With PDF 1.3 you get 40-bit encryption. With PDF 1.4 you get 128-bit encryption.

Passwords

You can apply security to PDF files by entering passwords and restricting selected features, such as editing and printing in the **Passwords** section of the Security tab.

A PDF file can have both an *Open document* password and a *Change security* password. If both passwords are applied, the document can be opened using either one.

When the correct Open document password is provided, the document is opened and decrypted. However, use of the document is limited by whatever restrictions have been specified in the **Security options** section of the dialog.

The Change security password allows the user to open the PDF and modify the security settings. When a file is opened with a Change security password, you have unrestricted access to the document, in effect, the security restrictions are temporarily disabled. If you wish to limit access to your file, you should apply a Change security password, otherwise anyone who opens the file is able to remove the restrictions.

It is important to note that the PDF viewing application will not prompt for a password if no Open document password is entered when creating a secured PDF. This means that when only a Change security password is used, the document is opened without the user having to provide a password, and use of the file is limited by whatever security restrictions have been imposed. As a result, if the user only has the free version of Acrobat, they are never able to obtain unrestricted access to the document.

With **Encrypt PDF Files** selected, you can choose various options to define the level of user actions allowed.

It is important to note that the options available in the Security Options and Changes Allowed sections are different depending on whether you are creating PDF 1.3 or PDF 1.4 documents. When you are creating PDF 1.4 documents you have independent control over the **Allow Content Access for the Visually Impaired, Document Assembly** and **Fill in Forms and Signing** options. When creating PDF 1.3 documents these options are automatically selected at the same time as the **Allow Copying of Text or Graphics**, **General Editing** and **Comment Authoring** options.

Security Options

The **Security Options** section of the Security tab contains the following options:

Allow copying of text and graphics: With this option selected, the PDF user is able to copy and paste text and graphics from the file.

Allow content access for the visually impaired: With this option selected, the PDF user is able to configure various reader options such as custom text, background colors and create more visible color schemes.

Note: When generating PDF 1.3 files, the ...**visually impaired** option is disabled and mimics the ...**text or graphics** option.

Changes Allowed

The options in the **Changes Allowed** section of the Security tab allow you to define the level of changes you will allow users to make on the PDF document.

No options selected: With no options selected, users are unable to do anything to the PDF document, including filling in signature and form fields.

Document Assembly: With this option selected, PDF users can insert, delete, and rotate pages, and create bookmarks and thumbnails.

General Editing: When this option is selected, the PDF user can perform Document Assembly and general editing, but cannot extract the contents of the PDF.

Fill in forms and signing: Allows the PDF users to sign and fill in forms, but not create them.

Comment Authoring: Allows the addition and editing of PDF (sticky note) comments and use of the highlight pen, but not general editing.

Printing: Select either `Enabled` or `Disabled` to allow or disallow printing of the PDF file.

Advanced tab (Mac OS X only)

NOTE: *On Classic Macintosh platforms, you can access advanced options by clicking* ***Advanced*** *in the* General tab *to open the Advanced Options dialog box. The options in this dialog box are the same as those in the Advanced tab on Mac OS X platforms, which are described below.*

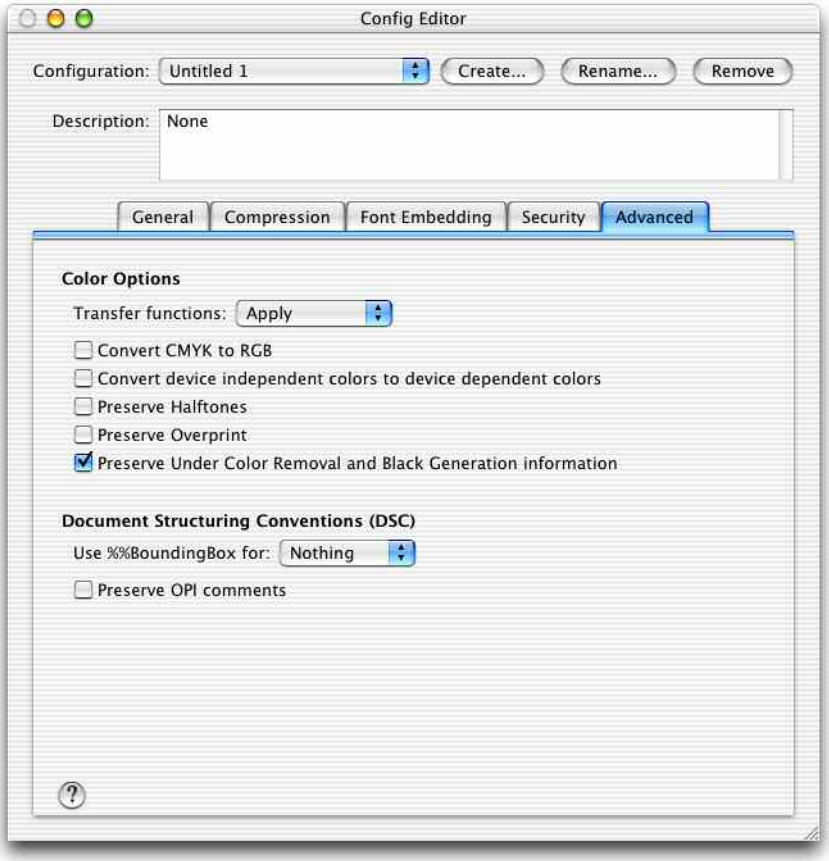


Figure 2.11 *Advanced tab*

The Advanced tab contains the following options:

Transfer functions: This menu provides the option of preserving, applying or removing transfer functions from the PostScript language file. If you select the **Apply** option, the document is displayed the same on-screen as when printed.

Convert CMYK to RGB: This option only applies to color images. If it is enabled, any four-color CMYK images in the PostScript language input file are converted to RGB images in the PDF output. This can result in a smaller PDF file that displays more quickly. You should enable this if your documents are intended for on-screen viewing, and disable it if they are intended for printing.

Enabling this option can cause an apparent color shift in the images to which it is applied. The conversion that PDF Creator uses is better suited to photographic images than to CMYK approximations of spot colors. You may find that on-screen reproduction of some graduated fills and tinted images is better with this option disabled than with it enabled.

Convert device independent colors to device dependent colors: With this option selected, PDF Creator converts colors specified in device-independent CIE-based color spaces into device-dependent RGB. This produces PDF files which display more quickly. Otherwise, these colors are converted into a device-independent calibrated RGB color space. This produces PDF files which render more slowly, but whose colors are more constant across properly set up output devices.

Preserve halftones: With this option selected, any halftone changes requested by the job are passed through to the PDF file. You should select this option when producing PDF files for print, and disable it when producing PDF files for on-screen viewing.

Preserve overprint: With this option selected, any changes to the PostScript graphics state overprint parameter requested by the job are passed though to the PDF file. This feature, along with **Preserve OPI comments**, **Transfer functions**, **Under Color Removal** and **Black Generation Information** is intended primarily for use within a pre-press environment.

Preserve under color removal and black generation information: This option allows you to preserve or remove under-color removal and black-generation information from the PostScript language file. This is normally only used in pre-press environments.

Use %%BoundingBox for : As well as the conventional page size request embedded in the PostScript language file, many files also contain comments describing the actual extent of marks on the page. The **Use %%BoundingBox for** option lets you: ignore these comments—by selecting `Nothing`; use the bounding box for the PDF page size—by selecting `Page Size`; or use the bounding box for the optional page cropping box—by selecting `Crop box`.

Acrobat Reader always displays pages as if they were the size specified for the page cropping box. Some applications may generate their own cropping box information using `pdfmark`, which overrides any cropping box set in this way.

Preserve OPI comments: OPI (Open Prepress Interface) is used to reduce network traffic by substituting high-resolution images with low-resolution screen images for the purpose of screen display and page make-up.

With this option selected, OPI comments in the PostScript language input file are reproduced as OPI dictionaries in the PDF output.

It is not necessary for the high-resolution image data to be available to PDF Creator—it passes the file name through to the output. PDF Creator produces only an OPI 1.3 dictionary, only an OPI 2 dictionary, or both, depending on whether the PostScript language file input uses one or both versions of the OPI comments.

Reporting tab (Classic Mac only)

NOTE: *On Mac OS X platforms, you can access reporting options by choosing **Jaws Configuration Editor > Preferences**. See "Preferences (Mac OS X only)" for more details.*

The Reporting tab allows you to control what happens to messages generated by the PostScript language compatible interpreter.

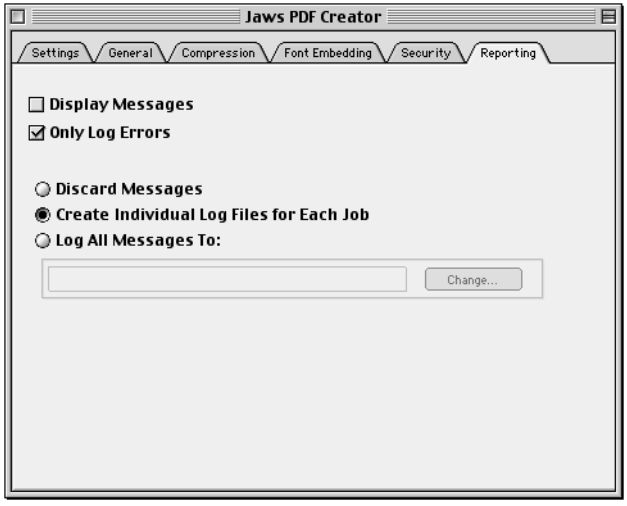


Figure 2.12 *Reporting tab*

Display Messages: If this option is selected, PDF Creator displays all messages generated by the interpreter in an on-screen message box.

This is useful for debugging. You should not leave this option permanently enabled, as the PostScript printer drivers normally cause messages to be generated continuously—for a serial printer, this allows tracking of the job, but viewing each message individually can become quite tedious.

Only log errors: If this option is selected, only error messages are written to the log file—normal progress and user messages continue to be displayed (if that option has been selected), but are not written to the log file.

Discard messages: If this option is selected, all messages from the interpreter are discarded. This is of use in a batch environment. When enabled, this also causes all error messages to be discarded, so you should use it with caution.

Create individual log files for each job: If this option is selected, PDF Creator creates an individual log file for each job, and writes messages generated by that job to its log file. The log file is created in the same folder as the PDF file, and with the same name, but with a `.log` extension. It may be viewed with a text editor. If the messages are merely informative, the log file is created in addition to the PDF output file. If an error occurs, the PDF file is not created, and the log file contains the relevant error messages.

Log all messages to: If this option is selected, the messages generated by all jobs are collected in a single log file.

The location and name of the log file can be entered into the text box. Alternatively, use the browser to choose the location of the log file.

When you select this option, a Directory dialog box appears allowing you choose the required name and location.

About Jaws PDF Creator

The **About Jaws PDF Creator** splash screen displays useful information about your version of Jaws PDF Creator.

Mac OS X: To open the splash screen, choose the **Jaws ToPDF > About ToPDF** menu option or the **Jaws Configuration Editor > About Configuration Editor** option.

Classic Mac: To open the splash screen, choose the **About Jaws PDF Creator** option from the Apple menu.

The splash screen contains the following information:

Version: This is the version number of PDF Creator.

Kernel build: This is a unique identification of the version of PDF Creator that you are using, and should be included on all bug reports that you submit.

Serial No. This is the Serial number you entered when installing the registered version of PDF Creator. You need this if you wish to report bugs or otherwise require support. If you installed a demonstration version of PDF Creator, this will read `Evaluation version`.

Enter Serial Number: This option is used to license your version of Jaws PDF Creator. For more information see "Serial number".

Preferences (Mac OS X only)

With the Configuration Editor open, choose the **Jaws Configuration Editor > Preferences** menu option to access message handling options.

The Configuration Editor Preferences dialog box appears:

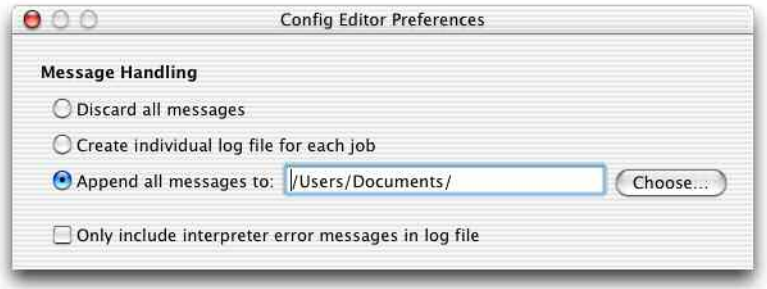


Figure 2.13 *Configuration Editor Preferences*

Discard all messages: If this option is selected, all messages from the interpreter are discarded. This is of use in a batch environment. When enabled, this also causes all error messages to be discarded, so you should use it with caution.

Create individual log file for each job: If this option is selected, PDF Creator creates an individual log file for each job, and writes messages generated by that job to its log file. The log file is created in the same folder as the PDF file, and with the

same name, but with a `.log` extension. It may be viewed with a text editor. If the messages are merely informative, the log file is created in addition to the PDF output file. If an error occurs, the PDF file is not created, and the log file contains the relevant error messages.

Append all messages to: If this option is selected, the messages generated by all jobs are collected in a single log file.

The location and name of the log file can be entered into the text box. Alternatively, click **Choose** to browse to the location of the log file.

Only include interpreter error messages in log file: If this option is selected, only error messages are written to the log file—normal progress and user messages continue to be displayed (if that option has been selected), but are not written to the log file.

Font management

To manage fonts, open the PDF Creator Configuration Editor (a.k.a. Control Panel) and choose the **File > Manage Fonts** option. Macintosh format fonts are supported.

The Font Management dialog allows you to control which fonts are installed and available to the PDF Creator printer. These fonts are always installed on your disk, of course, but you can control whether or not they are visible to PDF Creator, and therefore whether or not they can be loaded by the PostScript `findfont` operator.

This option makes no distinction between PFB format, PFA format (an ASCII format for Type 1 fonts typically used on UNIX platforms), or raw PostScript files containing Type 3 fonts. All of these fonts are displayed as PostScript fonts in this dialog, and all may be successfully installed for use with PDF Creator.

The core fonts that are installed with PDF Creator cannot be removed and are indicated with a "lock" icon. The core font set includes clones of the 35 standard PostScript printer fonts, as well as stub files which refer to them. For example, Helvetica is one of the standard fonts, but the font file for Helvetica is just a stub that substitutes the clone font Helsinki instead.

The reasons for wanting to make the fonts visible to PDF Creator differ for the two formats. The principal reason for installing Type 1 fonts is if you are using Jaws ToPDF to convert files which do not contain embedded fonts—for example, if they were created on a different machine. If you try to convert such files without making the

fonts available to PDF Creator, the document is converted with incorrect text metrics. By making the fonts you need available to PDF Creator, the document is converted with all the correct fonts and spacing.

If you add a Type 1 font to PDF Creator because it is used but not embedded in a PostScript language file, remember that it is not embedded in the PDF output files unless you also add it to the Always Embed list in the Font embedding tab. See "Font embedding tab" for more information.

Clicking the **Select Folder** button displays a browser dialog, allowing you to select the folder where PDF Creator can find the fonts you want to add. The **System Fonts** button is a shortcut, equivalent to opening the fonts folder.

Importing configurations

NOTE: This option is available on Mac OS X platforms only.

You can use the **Import configurations** option to import an XML file, containing the PDF configuration(s) from another machine or user. To create such an import file, you must use the **Export configurations** option, described in "Exporting configurations". For example, this option can be used to ensure all users within an organization have the same configuration settings and therefore create PDF documents of the same type.

To import an XML configuration file:

1. With Jaws Configuration Editor active, select **Import Configuration** from the **File** menu.
2. Use the displayed browser to choose the XML file to be imported. The file will have a `.xml` extension.
3. Click **Open** to import the file.
4. Choose the configuration(s) you wish to import. Use the Command key to select multiple configurations.
5. If you wish to make the configuration(s) available to other users, select the **Make available to all users** check box (requires administrator privileges).

6 Click **Import**.

*NOTE: When an XML file is exported and subsequently imported, the Always output files to and **Launch on job completion** locations are not transferred. This is because these locations are system specific and may not be appropriate on your system.*

Exporting configurations

NOTE: This option is available on Mac OS X platforms only.

You can use the **Export configurations** option to export an XML file, containing details of your configuration(s), for use on another machine or by another person. This XML file can be transferred between Macintosh and Windows versions of Jaws PDF Creator. To import such an XML file, you must use the **Import configurations** option, described in "Exporting configurations". For example, this option can be used to ensure all users within an organization have the same configuration settings and therefore create PDF documents of the same type.

NOTE: An XML file is a text file which can be opened and hand edited. However, doing this may cause your version of Jaws PDF Creator to produce unexpected results or fail.

To create an XML configuration file for distribution to other users of Jaws PDF Creator:

1 Ensure all your configurations are correct in all details.

2 With Jaws Configuration Editor active, select **Export Configuration** from the **File** menu.

3 Choose the configuration(s) you wish to export. Use the Command key to select multiple configurations.

4 Click **Export**.

5 Use the displayed browser to choose a location and name for your XML file. Ensure the file has a `.xml` extension.

6 Click **Save** to save the file.

*NOTE: When an XML file is exported and subsequently imported the **Always output files to** and **Execute on completion** locations are not transferred. This is because these locations are system specific and may not be appropriate on your system.*

Support

This section offers support and troubleshooting advice.

Downloading PDF Creator

You are able to download further copies of PDF Creator from:

- www.jawspdf.com.

To download an installer you must either provide a valid serial number or legitimate e-mail information.

Have the following information ready:

- Serial number (if you have one)
- Your name
- Job title
- Company name
- Telephone number
- E-mail address
- Platform on which PDF Creator is going to be used
- Language

Reporting problems

There is a FAQ section under the **Support** page at www.jawspdf.com.

If your problem is not covered here, you should submit a bug report.

When submitting a problem you should provide the following information:

- Operating system (For example, Classic Macintosh or Mac OS X)
- Version of PDF Creator
- Kernel build time (the kernel build time uniquely identifies the PDF Creator kernel you are using)

- Class of problem (kills application/kills PDF Creator/kills Operating System/incorrect output)
- Detailed description of problem
- Contact details

The kernel build time is available in the About Jaws PDF Creator splash screen.

Mac OS X: To open the splash screen, choose the **Jaws ToPDF > About ToPDF** menu option.

Classic Mac: To open the splash screen, choose the **About Jaws PDF Creator** option from the Apple menu.

Registering PDF Creator

Jaws PDF Creator can be registered on the World Wide Web. Point your browser at www.jawspdf.com and select the **Support** page and fill in the form. You should have the following information ready:

- Your name
- Company name and address
- E-mail address
- Company size
- Where PDF Creator was purchased
- Number of copies purchased
- The serial number supplied with the software

Contact information

If you need to contact Global Graphics Software Limited directly for any reason, you can use the address and numbers below:

Global Graphics Software Limited
Barrington Hall
Barrington
Cambridge, CB2 5RG

United Kingdom
Tel: +44 (0) 1223 873 800
Fax: +44 (0) 1223 873 873
Web site: www.jawspdf.com.
Mail regarding PDF Creator can be sent to sales@jawspdf.com.

Troubleshooting

This section offers some troubleshooting advice:

Acrobat Reader displays text as bullets: This is normally a problem with Acrobat incorrectly calculating the size of text displayed when using an embedded TrueType font. In Acrobat Reader's **File > Preferences > General dialog**, deselect the check box labelled **Greek text below... pixels**.

Acrobat Reader does not display some text: There are some undocumented restrictions on the commands which Acrobat Reader accepts in embedded CFF fonts (PDF Creator uses the CFF format for all embedded Type 1 fonts; you can find out the type of fonts used in your documents using the menu option **File > Document Info > Fonts dialog** in Acrobat Reader).

Where the PDF file produced by PDF Creator contains such unsupported commands, Acrobat Reader displays some characters in the font concerned as blanks. Please submit a bug report if you find such a font.

Text which should be outlined is displayed as solid: This appears to be a problem with the way Acrobat Reader displays certain Type 3 fonts. The document prints to a PostScript language-compatible printer correctly.

Bitmaps which should be transparent mask the background color: Acrobat Reader sometimes has problems displaying large bitmap masks, displaying them as opaque images instead. Use the Acrobat Reader menu option **File > Preferences > General** to open the General Preferences dialog, and unselect the **Smooth Text and Images** check box.

Invalidaccess error with setdistillerparams: The `setdistillerparams` operator is the way that PDF settings are controlled from within a PostScript language file. PDF Creator supports mostly the same set of parameters that other PDF creation applications support, although there are some extra parameters for PDF Creator (which are used by the PDF Creator Configuration Editor/Control Panel), as well as some parameters which do not make sense for PDF Creator.

You only ever see this message if you attempt to distill a PostScript language file which explicitly requests LZW using the `setdistillerparams` operator. If so, you should amend the PostScript language file to request Zip compression instead.

Colors in the PDF file do not match original colors: If you have enabled the **Convert CMYK to RGB** option (see the Advanced tab (Mac OS X only) or the Advanced Options dialog box (Classic Mac)), you may find that the color reproduction of some images is compromised. There is no universal way to convert CMYK images to RGB for on-screen viewing. The algorithm that PDF Creator uses for this conversion has been tuned to work well with photographic images. This means that it may not work so well for tinted images or graduated fills where the CMYK color contains a large black component. If this happens, you should deselect the **Convert CMYK to RGB** option: This results in slightly larger PDF files, but should have no other side effects.

Rotation and applications and drivers that do not generate %%ViewingOrientation: For applications and drivers that do not generate `%%ViewingOrientation` DSC comments a new option, called `PageOrientation`, has been added to the printer driver. By default `PageOrientation` is switched off and the auto-rotate setting in the PDF Creator configuration is respected. There are four other options: "Rotate by 0 degrees", "Rotate 90 degrees counter-clockwise", "Rotate 90 degrees clockwise" and "Rotate 180 degrees". These four options all switch off auto-rotate (if it was enabled) and apply the specified rotation to the page. The page is rotated from its default orientation. Because different applications do different things when, for example, they are asked to generate a landscape page from a portrait page (and vice versa), some trial and error is required.

Appendix 1
Technical Information

How PDF Creator works

This section describes how PDF Creator works and how it integrates with the operating system. The information contained here is not essential for using PDF Creator however an understanding of the information will help you get the most out of the product.

PDF Creator is built around a complete PostScript language-compatible interpreter. In the case of PDF Creator, the interpreter is called Jaws and is a clone interpreter developed for incorporation into hardware and software products. Also the raster-based back-end of the interpreter has been replaced with code which outputs graphical primitives as text—in this case, the text builds up into PDF page descriptions. It is also possible to convert PostScript language files into other page description languages using the same approach.

The PostScript language-compatible Jaws interpreter allows a number of transformations to be carried out in the interpreter pipeline, which is how PDF Creator implements features such as TrueType font substitution.

Integration with the operating system

On Mac OS X platforms, PDF Creator is implemented as a CUPS printer and backend. On Classic Macintosh platforms, PDF Creator implements a custom hose which allows a developer to process the PostScript language output from the LaserWriter driver version 8.6 or later in any way.

When the interpreter starts up—normally before every job is processed—it executes the file `startup.ps`. This file may contain any code that is to be executed once for all jobs. You should only modify this file if you are capable of writing PostScript language code. It contains the default parameter sets used by the image compression filters, and the lists of TrueType fonts which require special handling by PDF Creator. For more information about the contents of `startup.ps` see Section .

In addition, the PostScript language-compatible interpreter executes the file `prologue.ps` at the start of every job it converts. This file can contain any PostScript language code that needs to be run for every job. An example of this is the code that changes the contents of the document info dictionary in the PDF output file, described above. It also executes the file `epilogue.ps` at the end of every job. This may be used, for example, for any `pdfmark` calls that you may want to apply to every job you convert. See Section for more information on `prologue.ps` and Section for more on `epilogue.ps`.

Advanced topics

This section describes topics to do with file names and font embedding.

File names

PDF Creator has two strategies for creating the output file name, depending on whether you are using the PDF Creator printer or are converting files with Jaws ToPDF.

When you are printing directly to PDF Creator from an application, the document name passed to it by the printing system is used as a starting point from which to generate the name of the PDF output file.

If the document ends with a recognized suffix (`.ps` or `.eps`) it is removed before `.pdf` is appended.

This is the file name which PDF Creator offers you in the Save dialog box it normally displays for every job.

The output folder is determined by considering the following options:

- The folder specified by the **Always output files to** option in the General tab in the PDF Creator Configuration Editor/Control Panel, if selected.

- The last folder to which PDF Creator wrote a PDF file.

  Unless the **Always output files to** option is selected, PDF Creator always provides you with the opportunity to change both the folder and the file name using a browser dialog.

  At times, you may be surprised at the file names that PDF Creator generates in this way. The reason for this is that the document name is not normally used by the printing system, except in dialogs, to provide information about the status of the job. This means that there is no official format for the document name, and most applications make up their own rules.

  Therefore, PDF Creator may offer a default file name that is different to that which was expected. However, the file name that PDF Creator generates is always legal.

NOTE: *The colon (:) is the only character that is not valid in a Macintosh file name.*

PDF Creator never overwrites an existing output file without prompting, unless the **Overwrite an existing PDF file** option in the General tab of the Configuration Editor/Control Panel is selected.

If you have selected **Always output files to** from the General tab and a file with the same name already exists, PDF Creator appends a unique number to the file name.

When you use Jaws ToPDF to convert existing files, PDF Creator uses the input file name instead of the document name (because there is no document name) as the basis for the output file name. PDF Creator uses the name and location of the input file as the default destination, except that the file extension is replaced by `.pdf`. If **Always output files to** is selected from the General tab, the file is saved in this location. If not, PDF Creator displays the browser dialog and allows you to change the output file name.

See Section for more information on the General tab.

Font embedding

PDF files are capable of containing fonts in three different formats. PDF Creator is able to handle all three. Jaws PDF Creator only ever embeds fonts that were embedded in the original PostScript language file. Fonts that were read from disk, including the base 14 PDF fonts (but not including TrueType fonts read as part of the substitution process described below), are not embedded unless they are selected for embedding. See Section for more information.

Type 1 fonts

Type 1 fonts are the traditional format for hinted fonts in the PostScript language community. Type 1 fonts are always handled in a standard way by printer drivers, and PDF Creator can always extract them from the document and embed them in the PDF file. PDF Creator always converts Type 1 fonts to the new CFF (Compact Font Format), which is a more compact way of encoding the same information. Version 3 of Acrobat supports both the original Type 1 format and the Compact Font Format; however, there are some undocumented restrictions in the CFF commands that Acrobat Reader understands. For this reason, you may sometimes find that PDF Creator embeds a Type 1 font which will not display correctly on screen, but which does print correctly from Acrobat to a PostScript language compatible printer. If you encounter such a font, you should submit a PDF Creator bug report, which will enable us to comply better with the undocumented restrictions.

Type 3 fonts

Type 3 fonts are the format used in the PostScript language community for unhinted fonts (such as complex logotypes and bitmap fonts). PDF Creator does support Type 3 fonts, and will embed them.

TrueType fonts

TrueType is an alternative format for hinted fonts, which originally evolved in the personal computer community, rather than the PostScript language community. Many modern PostScript language compatible interpreters (including PDF Creator) are able to handle TrueType fonts directly, but for historical reasons, PostScript printer drivers make life more difficult.

The following paragraphs describe how the various PostScript printer drivers handle TrueType fonts, and how PDF Creator's TrueType font substitution works with each of them.

TrueType fonts with the Mac OS LaserWriter driver

These are the easiest to handle. The Mac OS printer driver embeds TrueType fonts in the PostScript language file as Type 42 PostScript fonts. PDF Creator can handle these directly and embed the font in the PDF output file. This happens regardless of whether TrueType substitution is on or off.

PostScript ProcSet resources

Fonts are one kind of resource that the PostScript printer driver may embed in a PostScript language file. Procedure sets, or *ProcSets* are another. Typically, both the printer driver and the application itself can generate ProcSets, which are used to define PostScript language procedures which are frequently used by the document. These ProcSets are identified by comments within the PostScript language file.

The convention used for these identifying comments allows a printer driver to omit a resource from a file when it is first generated, and subsequently arrange either for the printer to read the resource off disk, or for the spooler to insert the resource into the job immediately before sending it to the printer.

Control over application-generated ProcSets is left to the individual applications, and may not be possible.

You can instruct PDF Creator to intercept ProcSet resources in files sent to it, and save them to disk for later use. This option is not accessible from the PDF Creator Configuration Editor/Control Panel. Instead, you must find the following lines in the file `prologue.ps` (see Section for details):

```
%%%%%
% Here's how to turn on Resource Capturing.Uncomment
the next line
%systemdict /NiknakDict get begin /ExtractResources
true def end
```

To enable saving of ProcSet resources to disk, uncomment the line by removing the `%` character from the beginning of the line. Once the ProcSets have been saved to disk, you are able to send jobs with the ProcSet resources omitted to PDF Creator, and have them processed properly. If PDF Creator detects that a job requires a ProcSet resource that has not been saved to disk it issues a warning message to that effect, although the job will probably fail with a PostScript language error.

PostScript ProcSet resources normally have a version number as well as a name; PDF Creator treats ProcSets with the same name but different version numbers as being completely different.

When using this feature, you should bear in mind that ProcSets are PostScript language code and usually subject to copyright restrictions. Saving the resources to disk is equivalent to permanently downloading them to a printer—the authors of your application may or may not have granted you permission to do this.

You should only make use of this feature if you are working in a controlled environment and you are already comfortable with the idea of ProcSet resources.

Custom PostScript language files

There are three PostScript language files that are executed by the interpreter:

- startup.ps
- prologue.ps
- epilogue.ps

These files are in the following location:

Mac OS X: `/Library/Applications/Support/Jaws PDF Creator/JawsFolders/default/`

Classic Mac: `Jaws PDF Creator:Jaws PDF Creator Resources:Default:`

You can use these files for any custom PostScript language code that you want to be executed. Needless to say, you should only modify these files if you are comfortable with writing PostScript language code.

startup.ps

This file is executed when the interpreter first starts up. You can use it to make any global changes. In particular, the parameters that PDF Creator uses for the JPEG and CCITT image compression filters are stored here, as well as the lists of TrueType fonts that need special handling by the TrueType substitution code.

The image compression parameters are stored in four PostScript dictionaries at the start of the file, which give the parameters for the JPEG low, medium and high compression filters, and the CCITT fax compression filter respectively. If you understand how the PostScript compression filters work, you can modify the parameters here to change the behavior of the filters. The most common example might be to change the Q factor for one or more of the JPEG filters.

The TrueType dictionaries are stored near the end of the file, and are initially empty. You can add the names of any fonts that you have determined require special handling by the TrueType substitution code. For more information on the format of these dictionaries see Section , "Font embedding".

prologue.ps

This file is executed by the interpreter at the start of each job. This gives you the opportunity to make any changes that you want to apply on a per-job basis.

There are three pieces of example code here that you can use directly. The first section of code enables collection of PostScript ProcSet resources. The line:

```
systemdict /NiknakDict get begin /ExtractResources true
def end
```

turns on the collection of resources from incoming PostScript language jobs. After installation, this line is commented out—the `%` at the start of a line introduces a PostScript language comment. To enable collection of ProcSet resources, uncomment the line by removing the `%`, using a text editor. When you have collected all the ProcSet resources you need, you should comment out this line again.

The code to override the default author and creator information is also located here (normally extracted directly from the PostScript language file being converted). The code for each field is similar.

The PostScript procedure `DoAuthor` changes the author name:

```
(: YourNameHere) DoAuthor
```

This causes `YourNameHere` to appear as the author of the document. `DoAuthor` works by mangling the `%%Author` comment present in the job, which is why the operand to `DoAuthor` must start with a colon and space before the name itself.

The PostScript procedure `DoCreator` changes the creator in the same way:

```
(: CreatorName) DoCreator
```

After installation, the example lines for `DoAuthor` and `DoCreator` in `prologue.ps` are both commented out. If you wish to change the author or creator information, you must uncomment these lines by removing the initial `%` as well as changing the strings to reflect the names that you want.

epilogue.ps

This file is executed by the interpreter at the end of each successful job. Any PostScript language code placed here is included in the PDF file (if it generates any pages of output). More importantly, you may wish to place any calls to `pdfmark` here that you want to be applied to all jobs you convert.

Using PostScript plugins

Jaws PDF Creator has the ability to dynamically load PostScript language plugins. PostScript language plugins can be used to implement extra features. For example, we have supplied the following plugins:

- `XPressTrim.jcp` - an idiom set that catches crop marks in QuarkXPress jobs and adds a TrimBox to the page.
- `CorelTrim.jcp` - an idiom set that catches crop marks in CorelDraw jobs and adds a TrimBox to the page.
- `ConfigRecorder.jcp` - adds a text annotation to the first page of the job, recording the Jaws PDF Creator configuration used to make the PDF file.

These plugins are stored in the `Plugins (inactive folder)`, see Section for further details. To use a plugin, you must copy the relevant `.jcp` file into the `default` folder.

Please see the www.jawspdf.com website for the latest list of available plugins.

You can also create your own PostScript plugins. All such plugins should be given a `.jcp` extension. We recommend you place your PostScript plugins in the `Plugins (inactive)` folder. Any plugins you wish to make active should be manually copied into the `default` folder, in the same way as the supplied plugins.

The plugins are executed alphabetically, and if a particular plugin fails, the remaining plugins will still be executed. All actions can be viewed in the Jaws PDF Creator log file.

Visit www.jawspdf.com for information on new plugins for Jaws PDF Creator.

If you have questions, contact creator-support@jawspdf.com.

Map of installed files

The following tables list all the folders and files placed on your disk when you install PDF Creator.

Macintosh installation files

The following folders and files are installed on Mac OS X platforms:

`Jaws PDF Creator/`

The default installation folder. This folder is created in the `Applications` folder, unless you choose a different location in the Installer.

`ToPDF`

The PostScript language to PDF conversion utility.

`Configuration Editor`

The Configuration Editor. See "Configuration Editor reference" for details.

`Read Me`

A SimpleText file containing important user information.

`Jaws PDF Creator Manual.pdf`

Manual in Acrobat PDF format.

The following folders and files are installed on Classic Macintosh platforms:

`Jaws PDF Creator:`

The default installation folder. This folder is created in `Applications` folder, unless you choose a different location in the Installer.

`Jaws ToPDF`

The PostScript language to PDF conversion utility.

`Read Me`

A SimpleText file containing important user information.

`Make Jaws PDF Creator`

A small application that creates the PDF Creator Desktop Printer that is necessary for printing from any application. Since a Desktop Printer is automatically created by the installer, you should not normally need to use this application.

`Jaws PDF Creator Manual.pdf`

Manual in Acrobat PDF format.

`Scripts:`

Folder containing two scripts: one for Eudora and one for Outlook Express. For more information see "Launch on job completion".

`Jaws PDF Creator Resources:`

This folder contains the following items that are required by PDF Creator.

`Jaws PDF Creator File App`

A small application that prompts you to enter a PDF file name. This is used by PDF Creator during the conversion process.

`Default`

See "General files used by all operating systems".

`Font`

See "General files used by all operating systems".

`Resource`

See "General files used by all operating systems".

`Plugins (active)`

See "General files used by all operating systems".

Jaws PDF Creator Resources (Mac OS X only):

`/Library/Printers/PPD Plugins/Jaws PDF Creator PDE.plugin`

Implements the Jaws PDF Creator pane in the Print dialog (Print Dialog Extension).

`/Library/Printers/PPDs/Contents/Resources/en.lproj`

The PostScript Printer Description file, it defines the capabilities of the PDF Creator printer.

`/Library/Application Support/Jaws PDF Creator/PostProcessingApp`

A helper application used to support post processing of PDFs.

`/Library/Preferences/` or `~/Library/Preferences/`

Configurations and user settings are saved in preferences files. These are located in `/Library/Preferences/` if global, or `~/Library/Preferences` if user-specific.

`/usr/libexec/cups/filter/jawspdfcreator`

The CUPS printer which converts the PostScript file to a PDF file.

`/usr/libexec/cups/backend/jawsbackend`

The application which writes the PDF to disk.

`/Library/Application/Support/Jaws PDF Creator/JawsFolders/`

This folder contains the following items that are required by PDF Creator.

`default`

See "General files used by all operating systems".

`fonts`

See "General files used by all operating systems".

`resources`

See "General files used by all operating systems".

`plugins (active)`

See "General files used by all operating systems".

`lib`

This folder contains library files that are required by Jaws PDF Creator.

SYSTEM FOLDER ITEMS (Classic Mac only)

`Control Panels`

Jaws PDF Creator. The Jaws PDF Creator Control Panel.

`Preferences:Jaws PDF Creator Preferences`

This file contains all of your PDF Creator Preferences and configurations.

`Extensions:Printing Plug-ins:Jaws PDF Creator:`

The core PDF Creator PostScript language to PDF converter library.

`Extensions:`

Folder containing the following components of the Apple LaserWriter driver v8.6.

`LaserWriter 8`

The Apple LaserWriter 8.6 PostScript Printer driver.

`PrintingLib`

A shared library required by the LaserWriter driver.

`Printer Descriptions:Jaws PDF Creator PPD`

The PostScript Printer Description file, used by the LaserWriter driver, it defines the capabilities of the PDF Creator printer.

General files used by all operating systems

`epilogue.ps`

A PostScript language file run after every job (see Section).

`prologue.ps`

A PostScript language file used to configure PDF Creator (see Section).

`startup.ps`

A PostScript language file run at startup, contains compression settings (see Section).

`Default:`

A folder PDF Creator uses for miscellaneous files.

`Font(s):`

The folder PDF Creator uses for the 35 resident fonts.

The data in these files is copyright Stream Technologies Inc., and is not licensed for use with any software other than PDF Creator.

`Resource(s):`

This folder contains all the PostScript resources (other than fonts) that are known to the interpreter, and which may be loaded by the `findresource` operator.

`Plugins (inactive):`

This folder contains some PostScript language plugins which can be used to implement extra features. See Section for further details.

Index

C

Compression tab
  Compress text 33
  Compression filters 32
  Downsample 32
  Resolution 33
Control Panel reference 21
  Compression tab 31
  Font embedding tab 34
  General tab 26
  Reporting tab 43
  Security tab 36
  Settings tab 24
Create a PDF file
  and launch Acrobat Reader 15
  compatible with Acrobat 1.2 and 1.3 13
  containing bookmarks and links 12
  from an application 10
  from an EPS 11
  that can be sent by e-mail 14
  using a custom page size 12
  using compression 14
  without prompting for a file name 13
Create Outlook Message 29
Custom PostScript language files
  epilogue.ps 60
  prolog.ps 59
  startup.ps 58

E

Exporting configurations 48

F

File names
  Always output files to... 55
  Overwrite an existing PDF file 55
Font embedding
  TrueType fonts 56
  Type 1 fonts 55, 56
  Type 3 fonts 56
Font embedding tab
  Always embed 35
  Embed all fonts (except Base 14 fonts) 35
  Embed Base 14 fonts 36
  Never embed 35
  Subset fonts 36

G

General tab
  Advanced button 30
  ASCII format 28
  Auto-rotate pages 28
  PDF file format 27
  Resolution 27
  Thumbnail generation 27

I

Importing configurations 47
Introduction 5

J

Jaws ToPDF
  Configuration 17
Jaws ToPDF Configuration
  Always output files to... 19
  Always prompt for a destination 19
  Do not prompt for a destination 19

M

Map of installed files
  General files used by all operating systems 64
  MacOS installation files 61

P

PDF Creator
  Advanced topics 54
    Custom PostScript language files 58
    File names 54
    Font embedding 55
    PostScript ProcSet Resources 57
  Control Panel reference
    Compression tab 31
    Font embedding tab 34
    General tab 26
    Reporting tab 43
    Security tab 36
    Settings tab 24
  Integration with the operating system 53

R

Reporting tab
  Create individual log files for each job 44
  Discard messages 44
  Display messages 44
  Log all messages to 44
  Only log errors 44

S

Security tab
  Encrypt PDF files 36
  Passwords 38
Serial number 7
Settings tab
  About PDF Creator 44
  Font management button 46
System Requirements 6

T

Troubleshooting 51
TrueType fonts
  MacOS LaserWriter driver 56

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Jaws PDF Creator User Manual—Macintosh

Version 3

Document Issue: 101

December 2003

Part number: JAWS-3-4-0-PDFCreator

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9.5 This Licence together with the Schedule to it, represents the entire agreement between the parties and supersedes all prior agreements, arrangements and understanding between the parties to that subject matter.

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